

adding the four caliper readings recorded in accordance with Section 4 (c). Before addition, round off the recorded readings to the nearest 0.1 per cent in accordance with the rounding-off method given in Section 3 (d) to (h) of the Recommended Practices for Designating Significant Places in Specified Limiting Values (ASTM Designation: E 29).³

Report

6. The report shall include:
- (1) Designation of flow table used, including distance of drop, and
 - (2) Percentage of flow.

Note.—An alternate procedure for filling the mold is as follows: Place the flow mold on a section of plate glass (approximately 5 by 5 in.) with the larger end uppermost. Fill the mold and strike off the excess cement in the manner described above. Place the top of the flow table on the filled mold, and carefully grasp and invert the table and mold. Insert the shaft in the base, center the mold, and slide the glass plate off. Proceed from this point in the operation as directed above.

(c) Measure the diameter of the specimen with the caliper at four symmetrically distributed points and record the caliper readings.

Calculations

5. Calculate the percentage flow by

Standard Method of Test for CONSISTENCY OF MAGNESIUM OXYCHLORIDE CEMENTS BY THE FLOW TABLE¹

3, p. 314 (C 255 - 52).

Make the following editorial change in Standard Method C 255 - 52:

Section 2 (a).—Revise lines 6 through 8 to read as follows: "except that (1) the apparatus may be operated either manually or by means of a motor and (2) that the apparatus be adjusted to a $\frac{1}{4}$ -in. drop."

ASTM DESIGNATION: C 255 - 52

ADOPTED, 1952.²

This Standard of the American Society for Testing Materials is issued under the fixed designation C 255; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. This method of test covers the procedure for determining the consistency of magnesium oxychloride cements by means of a flow table.

Apparatus

2. (a) *Flow Table, Flow Table Mounting, Mold, and Caliper* shall conform to the Tentative Specifications for Flow Table for Use in Tests of Hydraulic Cement (ASTM Designation: C 230),³ except that the apparatus may be operated either manually or by means of a motor.

(b) *Timing Device*.—A stop watch or stop clock having a sweep second hand and an integrating minute hand and a minute scale shall be provided for timing.

Test Conditions

3. All operations shall be performed in an atmosphere maintained at a tem-

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the ASTM Committee C-2 on Magnesium Oxychloride and Magnesium Oxyphosphate Cements.
² Prior to adoption as standard, this method was published as tentative from 1950 to 1952.
³ Appears in this publication, see Contents in Numeric Sequence of ASTM Designations at front of book.

perature of 70 ± 1 F. and at a relative humidity of 50 ± 5 per cent (corresponding to a wet-bulb temperature range of 56.5 to 60.5 F.). All apparatus and materials shall be equilibrated to these standard conditions at time of use.

Procedure

4. (a) Make certain that the top surface of the table and the contacting surfaces of the shaft collar and top of the frame are dry and free of grease and soil. Place flow mold, with its smaller end uppermost, on the table top with its center over the center of the table.

(b) Partially fill the mold with the plastic cement and rod gently. Complete the filling and again rod through the first portion to ensure complete filling. Strike off the excess cement with a straight-edge, using a sawing motion. Repeat with a stroke in the opposite direction. Carefully lift the mold from the cement and rotate the cam so as to cause the table to drop 25 times at a uniform rate during the succeeding period of 15 ± 1 sec., starting the dropping cycles at 75 ± 5 sec. after cessation of the mixing procedure (Note).